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*R.T.*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/313,184	05/18/99	MIWA	K 054404

IM22/0424  
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EXAMINER

TUNG, T

ART UNIT	PAPER NUMBER
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1743

10

DATE MAILED:

04/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/313,184

Applicant(s)

MWA

IZAL

Examiner

T. TUNG

Group Art Unit

1743

Paper No. 10

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 3-9-01
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 16-32 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 16-32 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

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Claims 25-32 are rejected under 35 U.S.C. 102(a) as being anticipated by Kato et al.

Applicant argues that the drawings of Kato can not be construed to be to scale and thus do not meet the recited electrode area ratios.

This argument is not persuasive. While a patent's drawing may not be exactly to scale, it can be considered to show, or at the very least convey to one of ordinary skill in the art, general shapes and dimension proportions. In the instant case, electrode 28 of Kato is clearly more than twofold in area than electrode 24. For claim 25, the area ratio has no upper limit and is seen to be met by Kato.

Applicant also argues that Kato does not meet the limitation "wherein a pump current of less than 100 microamps flows between the first and second electrodes".

This argument is also not persuasive. First, this is a process limitation that defines no structure. All that is needed for Kato to meet this expression is the capability to pass that amount of current (less than 10 microamps) between electrodes 28 and 24. There is no doubt that Kato can pass such a minute of current.

As for claims 31 and 32, even though an outer limit ( $5/1$  or  $1/5$ ) is recited, Kato is considered to at least convey to one of ordinary skill in the art that electrode 28 has a size about 3 times that of electrode 24 and thus within the  $2/1$  to  $5/1$ , or  $1/2$  to  $1/5$ , ratio range.

Claims 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al in view of Japan '773 or Mase et al.

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These claims differ by calling for at least one electrode to be embedded in the solid electrolyte.

As discussed in the previous Office action, Japan (the entire abstract) or Mase (figures 2, 4, 6, 7, 9, 12) shows electrodes at least partially embedded in solid electrolyte members. It would have been obvious for Kato to embed the electrodes as shown by Japan or Mase, since that provides better anchoring and protection for them.

In regard to the various percentages of the resistance values of the sensor element compared to those of a sensor element with equal area electrodes, these percentages are inherent from the electrode areas of Kato.

The rejections based upon Hielscher et al, Holfelder et al and Nyberg are hereby withdrawn as being cumulative.

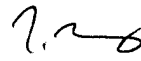
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The examiner can be reached at 703-308-3329. His supervisor Jill Warden can be reached at 703-308-4037. Any general inquiry should be directed to the receptionst at 703-308-0661. A fax number for TC 1700 is 703-305-3599.



Ta Tung

Primary Examiner

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